

New 500-kV transmission line needed to remove ‘transmission bottleneck’

Many recent news stories about California’s energy crisis have mentioned a “transmission bottleneck” that contributed to some of California’s electric system problems. This “bottleneck” occurs in the western San Joaquin Valley, in an area from roughly Los Baños to Coalinga.

Imagine, for a minute, that three lanes of fast-moving freeway traffic suddenly had to narrow to two lanes. The backup could take hours! Even the traffic in those two lanes can’t move quickly.

Transmission lines—the large power lines that are strung from tall metal towers running up and down the Valley—are the freeways of the electrical transportation system. The

biggest lines, energized at 500 kilovolts of electricity, are the interstate freeways. They carry power to and from places as far away as British Columbia, Colorado, or, conceivably, any place in the Western United States.

Their job is to get large quantities of electricity from one place to another in a big hurry. In fact, when the transmission lines are very heavily loaded—the electrical equivalent of rush hour—traffic can get backed up as far as Idaho. When traffic isn’t heavy, as much as 4,000 megawatts can pass through the bottleneck area. But when the transmission system—known as “the grid”—is overloaded, as little as 900 MW gets through.

The people operating and over-


seeing the transmission grid have names for every section of the grid. The bottleneck area is known as “Path 15.” Path 15 isn’t a single transmission line. It’s a group of interconnected lines that allow power to flow between Northern and Southern California. When the transmission path is at capacity, power deliveries must be reduced. This can contribute to blackouts.

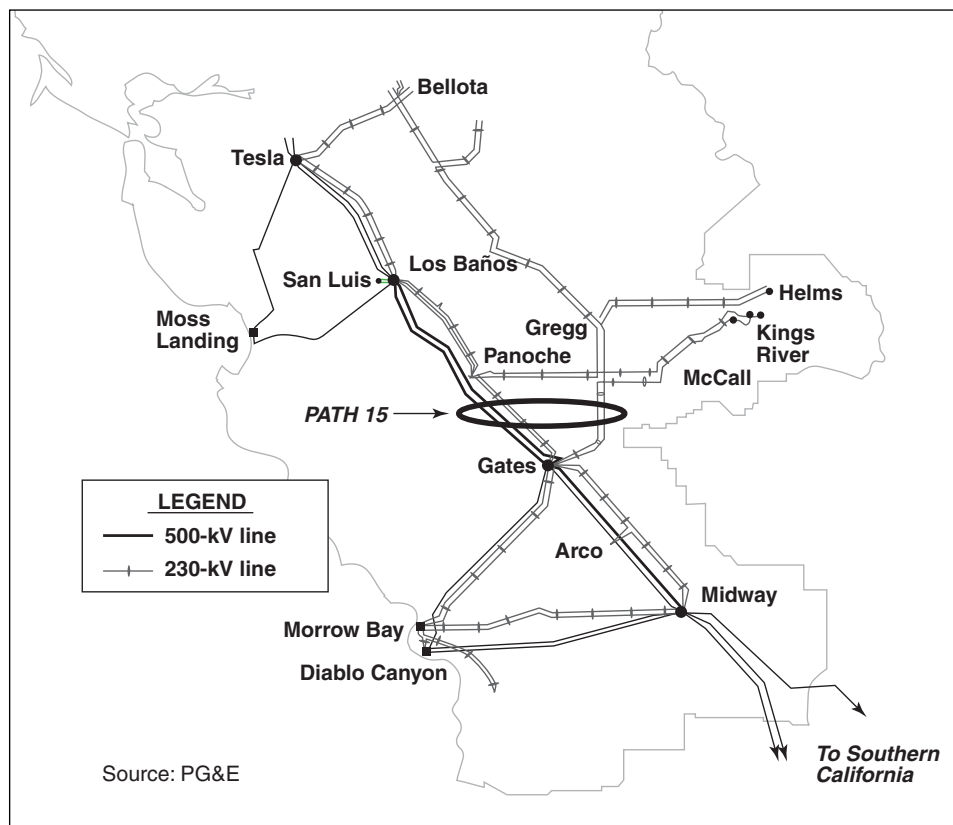
Unless a new section of 500-kV transmission line is built, this problem will remain, and it will only make California’s energy problems worse. In fact, the Independent System Operator, the agency that operates transmission lines within California, estimates that the Path 15 bottleneck cost Californians as much as \$221.7 million in the 16 months between September 1999 and December 2000—and that was before California’s energy problems got really bad.

What’s being proposed

Fixing the bottleneck will require the following work:

- Building a third 500-kV line between Los Baños Substation and Gates Substation (near Coalinga)
- Realigning an existing 500-kV line, known as Los Baños-Midway No. 2, into Gates Substation
- Modifying Los Baños and Gates substations to accommodate new equipment
- Upgrading parts of a 230-kV transmission line known as Gates-Arco-Midway

The project will cost about \$300 million and will take three to four years to build. 



Path 15 includes the transmission lines shown here.


Why is a Path 15 upgrade being proposed now?

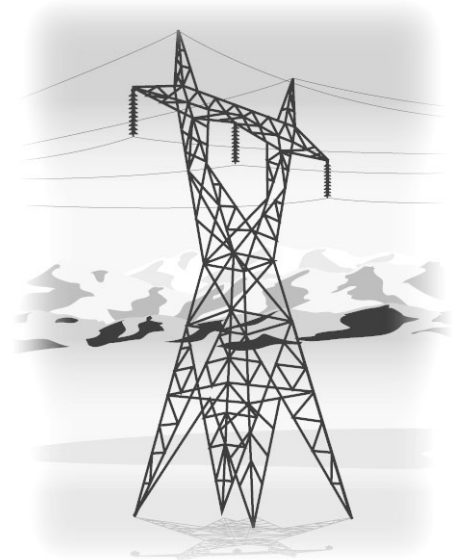
In the late 1980s, Western, Pacific Gas & Electric Company and the Transmission Agency of Northern California held public meetings throughout the Central Valley to discuss a transmission line called the Los Baños-Gates Transmission Line.

What's being proposed is very similar to what was considered then.

The three parties completed the

environmental impact documents needed to proceed with the project, but when PG&E did an in-depth analysis it concluded that it could instead provide the necessary transmission using its current lines and not build the third 500-kV line.

Due to load growth in California and the way the transmission system is operated under deregulation, a path upgrade is needed. 



Who will do the work?


The crisis is big enough that state and Federal agencies are following two parallel paths, just to make sure there's one final solution.

At the direction of the California Public Utility Commission, Pacific Gas and Electric has already begun planning and environmental studies.

Since the problem is urgent,

Energy Secretary Spencer Abraham directed Western Area Power Administration, which is part of the U.S. Department of Energy, to take the lead in conducting the planning and environmental studies needed to proceed with the project as if it were a Federal project. Western and PG&E are cooperating to avoid duplication in the planning and environmental work.

The Secretary also directed

Western to determine if outside parties are interested in helping finance and co-own the line. Western has invited interested parties to submit initial expressions of interest. Western requested information such as prior experience financing electric utility transmission lines, amount of financing offered, and other similar information. Several entities have expressed interest. 

Who could be impacted?

The proposed new 500-kV line would follow essentially the same route identified in the original environmental studies. A number of alternatives were considered, including several to the east of Interstate 5 that cut through irrigated farm land.

Following a public process, a route in the rolling foothills west of Interstate 5 was identified as a better solution. Western also considers this the preferred route.

The environmental studies identified a corridor approximately 2,000 feet wide within which the line would be located. The exact path the line would follow through that corridor, including tower locations, still

has to be determined.

Western uses slightly different tower designs than PG&E, so the tower locations might be different depending on who actually builds the lines. Before anything is decided, property owners and the public will have an opportunity to comment on both the project and the route.

The land in the proposed transmission corridor is primarily non-irrigated, rolling hilly country. It is mostly used for livestock grazing, with a few orchards and field crops under cultivation. Most of the land is owned by private parties, with 6 percent owned by Federal agencies and 2 percent by state agencies.

There are few homes near the proposed line route.




What are the possible impacts?

Studies of possible environmental impacts were conducted in the late 1980s and published in an environmental impact statement/environmental impact report. Western now needs to determine if environmental or regulatory conditions have changed enough in the last

decade to affect the kinds or magnitude of impacts. Western will host two public meetings to discuss the project and its possible effects, or you can send comments to Western using the form included in this newsletter.

To help you think about possible

impacts of this proposed project, the articles below offer a short summary of the concerns people described during public meetings in the 1980s, as well as impacts described in environmental impact documents filed at that time. 

Concerns expressed in public meetings

Most of the concerns discussed in the public meetings were the possible impacts of the alternative routes east of Interstate 5 that went through irrigated farmland. Western's preferred route is to the west of Interstate 5.

Farmers were concerned that a transmission line would affect the flow or distribution of irrigation water in the field. They also believed that a transmission line made aerial spraying or seeding more difficult and expensive, as well as less effective. Irrigation lines also impacted operation of large-scale equipment. Those who already had transmission lines in their fields reported added difficulties with insect and weed control.

Farmers strongly recommended avoiding routes through intensively farmed lands but were particularly opposed to lines that crossed their fields on a diagonal path, as this would create the greatest impact on their operations. If there had to be transmission lines, farmers wanted them to follow property or section lines.

Farmers were also concerned about the procedures that would be used in acquiring rights-of-way, and recommended that the company work directly with individual landowners when locating towers.

Some people also expressed concerns about power lines near homes. Not only was there a concern for visual impact, but people were concerned about potential health effects from living close to high-voltage lines.


Most of these concerns did not

apply to the western route selected as the preferred option. However, as the proposed route curves east back into the Gates Substation, it does cross one property that is currently under cultivation.

That landowner was concerned about all the same impacts described by farmers on the eastern routes. Avoiding the cultivated portions of that property would add 1.2 miles of length to the line, with considerable added cost. In addition, the landowner's proposed alternative route would come near several private residences.

The Bureau of Land Management did not believe that the environmental impact statement accurately portrayed the visual impacts of the line from the Panoche Hills Wilderness

Study Area. But the BLM agreed that the mitigation measures described in the environmental documents would make these impacts acceptable.

Representatives of various governmental agencies pointed out the need to evaluate the impact upon rare, threatened and endangered species, as well as wildlife habitats and paleontological resources. They also described several areas—such as the proposed Los Baños Grandes Offstream Storage project, the Panoche Hills Wilderness Study Area, Huron residential-zoned area, California Aqueduct and other canals, and the proposed Coalinga Air Cargo Port—that might not be compatible with a transmission line. 

EIS/EIR identifies impacts

The 1988 environmental impact statement/environmental impact report showed that the preferred route was the environmentally superior alternative. The studies also concluded that the preferred alternative would produce no significant adverse environmental impacts.

The project could impact rare, threatened or endangered plants and animals, as well as cultural and paleontological resources, but most of these impacts could be avoided by careful selection of tower locations and alignment. The studies concluded that the project

would result in only minimal impacts on earth resources, air and water quality, and public health and safety. No adverse socioeconomic impacts are anticipated.

During construction, the project would have short-term impact on about 260 acres of land. In the long term, about 150 acres of land would be affected by access roads and tower locations. Only a small amount of land would be removed from agricultural production. There would be some impact on aesthetics, as the line would be visible in the distance from a few viewpoints.


What's the work schedule?

The good news is that Western doesn't have to start from scratch, conducting new environmental studies. Instead it only needs to review the work and update the analysis in the EIS and then determine whether there have been any changes in the area that could change the conclusions in the earlier studies. Western's findings will be summa-

rized in a document called a Supplement Analysis.

Western plans to complete its studies by mid-August. Western will summarize its findings in a second newsletter to be mailed to the public, as well as in a more detailed report.

Late in August, Western will host two public meetings at which the

public will have the opportunity to discuss concerns and comment on Western's findings. Western will send its recommendation to the Secretary of Energy. The Department of Energy will announce a decision and publish a Record of Decision in mid-September. 

Project timeline

August	Western issues Newsletter 2 and report summarizing Western's findings
	Public meetings, August 27 & 28
September	Western's recommendation goes to Secretary of Energy
	DOE issues Record of Decision

How can you participate?

Here's how you can participate:

- You can get all the latest information about the Path 15 project by logging in to our web site, at **www.WAPA.gov**. Click on "Path 15" in the News Desk. If you don't have a computer, you can access the Internet at the Los Baños and Coalinga libraries. We've also set up a repository of actual documents at both those sites.
- To receive periodic information on the project or make a comment, send us an e-mail (**Path15@wapa.gov**), complete the attached comment card, call us toll-free at 1-866-290-9686 or write us at: Tom Boyko, Path 15 Project

Manager, Western Area Power Administration,
114 Parkshore Drive, Folsom, CA, 95630-4710.

- Attend one of our public meetings:

August 27, 2001, 7 p.m.

Coalinga Library Program Room,
305 N. 4th Street (4th and Durian),
Coalinga

August 28, 2001, 7 p.m.

City Council Chambers
Los Baños City Hall
520 J Street
Los Baños

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MAIL IN CARD **FEEDBACK WANTED!!!**

Western wants to know your views about the Path 15 proposal.

- ☐ **YES.** Please keep me updated about the Path 15 project.
- ☐ **NO.** Save a tree. I'll get the information from the Web site.
- ☐ **PLEASE CONTACT ME** about my concerns/answer a question

Name: _____

Title (if any): _____ Organization (if any): _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Phone (): _____ E-mail: _____

Comments about the Path 15 project: _____

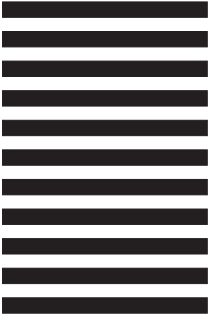
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